

### **REMARKS**

This is a supplemental response to the Official Action dated August 4<sup>th</sup>, 2008. It provides a supplemental argument as to the allowability of the claimed invention.

### **35 USC § 102 Rejections**

Claims 1 and 4 have been rejected under 35 U.S.C. § 102(e) as being anticipated by Yagi et al (US 20002/0038656, hereinafter referred to as “Yagi ‘656”). Applicant respectfully traverses this rejection.

Claim 1 recites: *[a]n oxygen supplying apparatus comprising an oxygen generating means, an oxygen supplying means for supplying the oxygen generated by the oxygen generating means to a user and an automatic closing valve placed on an oxygen-supplying passage, wherein the oxygen supplying apparatus comprising:*

*a respiration sensor which detects the respiration of the user and provides a respiration signal;*

*a supply method setting means which selects the supply in a continuous flow or the supply in synchronism with the respiration of the user;*

*a flow rate setting means for a supply flow rate set value; and,*

*a controlling means which controls an aperture of the automatic closing valve corresponding to the supply flow rate set value of the flow rate setting means by receiving a supply method setting signal of the continuous flow, or opens the automatic closing valve on the inhalation starting point based on the respiration signal of the respiration sensor by receiving a supply method setting signal of the synchronous flow and at the same time controls the open time of the automatic closing valve corresponding to the flow rate set*

*value, wherein the automatic closing valve is controlled by the controlling means which had taken the information set by the supply method setting means and the flow rate setting means.*

These claimed features are not disclosed nor suggested by Yagi '656. Yagi '656 discloses a small oxygen enriching apparatus which can supply oxygen enriched gas at a high flow rate. The oxygen enriching apparatus is capable of producing high-concentration oxygen from air through the adsorption removal of nitrogen from the air and supplying the high-concentration oxygen to the patient.

Further, the apparatus of Yagi '656 runs such that when a flow rate (first flow rate) is set within a range below the continuous base flow rate (2 L/m), oxygen enriched gas is supplied continuously in accordance with the set flow rate. On the other hand, when a flow rate (second flow rate) is greater than the continuous base flow rate (2 L/min), oxygen enriched gas is supplied in the breath-synchronized control in accordance with the set flow rate (see [0102], [0103], and [0131-0134]). Further, the controller 59 detects inhalation by use of the pressure sensor 55; calculates an averaged breathing cycle time from an average value of the past 2-5 breathing cycle time; regards one-third of the averaged breathing cycle time as an inhalation period; and opens the electromagnetic valve 45 over the inhalation period to thereby supply oxygen-enriched gas to the patient (see [0126]).

In the apparatus of Yagi '656, when oxygen enriched gas is supplied continuously, the flow rate is adjusted in accordance with the set flow rate by controlling an orifice of the flow-rate setting unit 47, not by controlling the aperture of the electromagnetic valve 45 under the control of the controller 59 (see [0102], [0103], and [0131]). On the other hand, in the Applicant's claimed invention, the flow rate is adjusted in accordance with the set flow rate by controlling the aperture of the automatic closing valve under the control of the controlling means.

Second, in the apparatus of Yagi '656, when a flow rate (first flow rate) is set within a range below the continuous base flow rate by operating the flow-rate setting unit 47, oxygen enriched gas is supplied continuously in accordance with the set flow rate. And when a flow rate (second flow rate) is greater the continuous base flow rate (2 L/min), oxygen enriched gas is supplied in the breath-synchronized control in accordance with the set flow rate (see [0102], [0103], and [0131-0134]). The flow-rate setting unit 47 of Yagi '656 works as both the supply method setting means and the flow rate setting means. Moreover, in the Applicant's invention of amended claims 1 and 5, the automatic closing valve is controlled by the controlling means which had taken the information set by the supply method setting means and the flow rate setting means, or the supply method setting means and the flow rate setting means are composed separately and independently.

Therefore, the apparatus of Yagi '656 cannot supply oxygen enriched gas in the breath-synchronized control, when a flow rate is set within a range below the continuous base flow rate (2 L/min). But Applicant's invention can supply oxygen enriched gas in the breath-synchronized control, even if a flow rate is set within a range below the continuous base flow rate or not. So the present invention can save on the volume of generating oxygen enriched gas, and can reduce electric power for running. And it can reduce the task of the adsorbent, and can improve the life span of the apparatus. Especially in a portable-type oxygen supplying apparatus, it can improve the span of the battery to use, so the patient can bring out the apparatus for a long time. Thus the patient can act more actively, and it enables to improve the Quality of Life (QOL) of the patient.

As mentioned above, there are difference between Yagi '656 and the claimed invention. The claimed invention has excellent effects that cannot be obtained in Yagi '656. Further there is no motivation or suggestion in Yagi '656. Accordingly, Applicant respectfully requests that the rejection of claims 1 and 4 under 35 U.S.C. § 102(b) as being anticipated by Yagi '656 be withdrawn.

### **35 USC 103 Rejections**

Claims 2 and 3 have been rejected under 35 U.S.C. § 103 as being unpatentable over Yagi '656 alone. Applicant respectfully traverses this rejection.

Claims 2 and 3 depend from and thus incorporate the features of claims 1, which are neither disclosed nor suggested by Yagi '656, for the reasons stated above.

Regarding claim 2, Applicant respectfully submits that there is no *motivation for* or *suggestion of* modifying the diameter of the automatic closing valve (45) of Yagi '656 to have "a response time from a full close state to a full open state of 0.1 sec or less." Applicant notes that even when obviousness is based on a single prior art reference, there must be a showing of suggestion or motivation to modify the teachings of that reference. The Office Action admits Yagi '656 is silent regarding the automatic closing valve to have "a response time from a full close state to a full open state of 0.1 sec or less."

Accordingly, Applicant respectfully requests that the rejection of and claims 2 and 3 under 35 U.S.C. § 103(a) as being unpatentable over Yagi '656 be withdrawn.

### **Double Patenting Rejection**

Claims 1-4 are provisionally rejected on the grounds of nonstatutory obviousness-type double patenting as being unpatentable over claims 1, 4, and 7 of co-pending Application No. 10/569,463. Applicant does not concede the propriety of these grounds of rejection, and asks that the requirement for a terminal disclaimer be held in abeyance pending the indication of allowable subject matter, so that Applicant can give an assessment at that time of the differences between what is claimed and allowed herein vis-à-vis the '463 application.

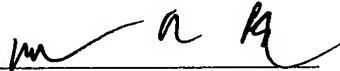
### **Conclusion**

In view of the foregoing arguments, all claims are believed to be in condition for allowance. If any further issues remain, the Examiner is invited to telephone the undersigned to resolve them.

This response is believed to be a complete response to the Office Action. However, Applicant reserves the right to set forth further arguments supporting the patentability of their claims, including the separate patentability of the dependent claims not explicitly addressed herein, in future papers. Further, for any instances in which the Examiner took Official Notice in the Office Action, Applicant expressly does not acquiesce to the taking of Official Notice, and respectfully request that the Examiner provide an affidavit to support the Official Notice taken in the next Office Action, as required by 37 CFR 1.104(d)(2) and MPEP § 2144.03.

Dated: December 2, 2008

Respectfully submitted,

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